

# BEST AVAILABLE COPY

35468S

IBM CONFIDENTIAL

## CLAIMS

1. A method for monitoring activity on a computer network, comprising:
  - providing a map of a group of resources, which are  
5 accessible via the computer network;
  - tracking access of the resources in the group by computer users, so as to identify one or more of the users with respective resources that they are accessing; and
  - 10 registering the identification of the one or more users and their respectively-accessed resources with the map.
2. A method according to claim 1, wherein providing the map comprises generating a graph having nodes  
15 corresponding to the resources and edges corresponding to links between the resources.
3. A method according to claim 1, wherein providing the map comprises mapping a group of pages configured for reading by a browser program.
- 20 4. A method according to claim 3, wherein mapping the group of pages comprises mapping pages of a World Wide Web site.
5. A method according to claim 3, wherein tracking the access comprises receiving notification when one of the  
25 users enters or leaves one of the pages.
6. A method according to claim 5, wherein receiving the notification comprises monitoring at least some of the pages using a synchronous event server coupled to the network and receiving event indications from the server  
30 with respect to the pages.
7. A method according to claim 1, wherein registering the identification comprises providing for one or more of

the resources respective lists of the users accessing the resources.

8. A method according to claim 1, wherein registering the identification comprises providing on the map for one  
5 or more of the resources indications of the respective numbers of users accessing the resources.

9. A method according to claim 8, wherein providing the indications comprises providing an icon having the form of a container for receiving a substance, such that a  
10 fill level of the substance in the container indicates a relative number of the users accessing the respective resource.

10. A method according to claim 1, wherein registering the identification comprises selecting one of the users  
15 and marking on the map the resources that the selected user has accessed.

11. A method according to claim 1, and comprising initiating a synchronous communication with at least one of the users responsive to the registered identification  
20 of the user with the respectively-accessed resource while the user is accessing the resource.

12. A method according to claim 11, wherein initiating the synchronous communication comprises opening a chat session with one or more of the users accessing a given  
25 resource.

13. A method for visualizing access to a computer resource, comprising:

counting the number of times that the resource is accessed;

30 displaying an identification of the resource on a computer display; and

displaying an icon in association with the identification, the icon having the form of a container for receiving a substance, such that a fill level of the substance in the container indicates the number of times  
5 that the resource is accessed.

14. A method according to claim 13, wherein the substance comprises a fluid, whose level in the container rises as the number increases.

15. A method according to claim 14, wherein a color  
10 representing the substance inside the container changes as the number increases.

16. A method according to claim 13, wherein the resource comprises a Web page, and wherein counting the number of times that the resource is accessed comprises counting a  
15 number of visitors to the Web page.

17. A method for interactive access to a group of resources via a computer network, comprising:

accessing a first resource in the group via the network;

20 receiving information, responsive to accessing the first resource, regarding a user who is accessing a second resource in the group; and

communicating with the user via the network responsive to the information, while the user is  
25 accessing the second resource.

18. A method according to claim 17, wherein the group of resources comprises a group of Web pages configured for reading by a browser program, such that accessing the first resource comprises browsing a first page, and  
30 accessing the second resource comprises browsing a second page, and wherein communicating with the user comprises communicating while browsing the pages.

19. A method according to claim 18, wherein the group of pages comprises a World Wide Web site, and wherein receiving the information comprises receiving information regarding visitors to pages of the site other than the first page.

20. A method according to claim 18, wherein receiving the information comprises receiving notification when the user enters or leaves one of the pages in the group.

21. A method according to claim 20, wherein receiving the notification comprises monitoring at least some of the pages using a synchronous event server coupled to the network and receiving event indications from the server with respect to the pages.

22. A method according to claim 18, wherein receiving the information comprises receiving information responsive to program code embedded in a textual description of one or more of the Web pages read by the browser program.

23. A method according to claim 17, wherein receiving the information comprises receiving for at least the second resource a list of users accessing the resource.

24. A method according to claim 23, wherein communicating with the user comprises automatically opening a communication link responsive to selection from the list of the user with whom to communicate.

25. A method according to claim 17, wherein receiving the information comprises receiving an indication of the number of users accessing the second resource.

26. A method according to claim 17, wherein communicating with the user comprises opening a chat session with the user.

27. A method according to claim 17, wherein communicating with the user comprises sharing an application related to the resources with the user.

28. A terminal for managing a group of resources, which  
5 are accessible via the computer network, comprising:

a display, adapted to display a map of the resources in the group; and

a processor, adapted to track access of the resources by computer users, so as to identify one or  
10 more of the users with respective resources that they are accessing, and to register the identification of the one or more users and their respectively-accessed resources with the map on the display.

29. A terminal according to claim 28, wherein the map  
15 comprises a map of a group of pages configured for reading by a browser program.

30. A terminal according to claim 29, wherein the group of pages comprises pages of a World Wide Web site, which is managed by means of the terminal.

20 31. A terminal according to claim 29, wherein the processor is configured to receive notification when one of the users enters or leaves one of the pages.

32. A terminal according to claim 31, wherein the notification is provided by a synchronous event server  
25 coupled to the network.

33. A terminal according to claim 32, wherein the processor is further adapted to establish a synchronous connection with one or more of the computer users by means of the synchronous event server.

30 34. A terminal according to claim 28, wherein the processor is adapted to generate, for one or more of the

resources, respective lists of the users accessing the resources.

35. A terminal according to claim 28, wherein the processor is adapted to generate, for one or more of the resources, indications on the display of the respective numbers of users accessing the resources.

36. A terminal according to claim 28, wherein the processor is adapted, for a selected one of the users, to drive the display so as to mark on the map the resources that the selected user has accessed.

37. A terminal according to claim 28, wherein the processor is adapted to initiate a synchronous communication with at least one of the users responsive to the registered identification of the user with the respectively-accessed resource while the user is accessing the resource.

38. A terminal according to claim 37, wherein the synchronous communication comprises a chat session.

39. A terminal for visualizing access to a computer resource, comprising:

a display, adapted to display an identification of the resource; and

a processor, adapted to drive the display to display an icon in association with the identification, responsive to the number of times that the resource is accessed, the icon having the form of a container for receiving a substance, such that a fill level of the substance in the container indicates the number of times that the resource is accessed.

40. Apparatus for providing interactive access by a first user to a group of resources via a computer network, the apparatus comprising:

a display, adapted to display information; and  
a processor, adapted to communicate via the network  
so as to access a first resource in the group via the  
network and to receive information, responsive to  
5 accessing the first resource, regarding a second user who  
is accessing a second resource in the group and to drive  
the display to display the information,

wherein the processor is operative to enable the  
first user to communicate with the second user via the  
10 network responsive to the information, while the second  
user is accessing the second resource.

41. Apparatus according to claim 40, wherein the group  
of resources comprises a group of Web pages configured  
for reading by a browser program run by the processor,  
15 such that the first resource comprises a first page, and  
the second resource comprises a second page, and wherein  
the processor is configured to enable the first and  
second users to communicate while browsing the pages.

42. Apparatus according to claim 41, wherein the group  
20 of pages comprises a World Wide Web site, and wherein the  
processor is adapted to receive information regarding  
visitors to pages of the site other than the first page.

43. Apparatus according to claim 41, wherein the  
processor is adapted to receive notification when the  
25 second user enters or leaves one of the pages in the  
group.

44. Apparatus according to claim 43, wherein the  
processor is adapted to communicate with a synchronous  
event server coupled to the network and to receive event  
30 indications from the server with respect to the pages so  
as to monitor other users entering and leaving the pages.

45. Apparatus according to claim 41, wherein the pages contain program code embedded in a textual description thereof read by the browser program, which enables the processor to receive the information regarding the second  
5 user.

46. Apparatus according to claim 41, wherein the processor is configured to enable the first user to open a chat session with the second user.

47. Apparatus according to claim 41, wherein the  
10 processor is configured to enable the first user to share an application related to the resources with the second user.

48. A method for tracking visitors to a group of virtual places accessible via a computer network, the method  
15 comprising:

generating event indications responsive to access by one or more of the visitors to at least a first virtual place; and

conveying the event indications to a client for the  
20 information of a user of the client who is not visiting the first virtual place.

49. A method according to claim 48, wherein generating the event indications comprises initiating an observer process associated with the first virtual place, so as to  
25 generate the event indications.

50. A method according to claim 49, wherein initiating the observer process comprises initiating observer processes at a plurality of the virtual places.

51. A method according to claim 48, wherein the virtual  
30 places comprise Web pages.



52. A method according to claim 48, and comprising opening a synchronous communication link between the user of the client and at least one of the visitors.

53. A method according to claim 52, wherein opening the  
5 synchronous communication link comprises opening a chat window.

54. A method according to claim 52, wherein opening the synchronous link comprises providing a shared application.

10 55. A synchronous server, comprising a processor coupled to a computer network, which is adapted to track visitors to a group of virtual places accessible via the network so as to generate event indications responsive to access by one or more of the visitors to at least a first  
15 virtual place, and to convey the event indications to a client for the information of a user of the client who is not visiting the first virtual place.

56. A server according to claim 55, wherein the virtual places comprise Web pages.

20 57. A server according to claim 55, wherein the processor is adapted to open a synchronous communication link between the user of the client and at least one of the visitors.

58. A computer software product for monitoring activity  
25 on a computer network, the product comprising a computer-readable medium having program instructions stored therein, which when read by a computer, cause the computer to display a map of a group of resources, which are accessible via the computer network, and to track  
30 access of the resources in the group by computer users so as to identify one or more of the users with respective resources that they are accessing and to register the

identification of the one or more users and their respectively-accessed resources with the map.

59. A computer software product for visualizing access to a computer resource, the product comprising a  
5 computer-readable medium having program instructions stored therein, which when read by a computer, cause the computer to maintain a count of the number of times that the resource is accessed and to display, in association with an identification of the resource on a computer  
10 display, an icon having the form of a container for receiving a substance, such that a fill level of the substance in the container indicates the number of times that the resource is accessed.

60. A computer software product for interactive access  
15 to a group of resources via a computer network, the product comprising a computer-readable medium having program instructions stored therein, which when read by a computer operated by a first user, cause the computer, upon accessing a first resource in the group via the  
20 network, to receive information, responsive to accessing the first resource, regarding a second user who is accessing a second resource in the group, and to establish communications via the network between the first and second users via the network responsive to the  
25 information, while the second user is accessing the second resource.

61. A computer software product for tracking visitors to a group of virtual places accessible via a computer network, the product comprising a computer-readable  
30 medium having program instructions stored therein, which when read by a server, cause the server to generate event indications responsive to access by one or more of the visitors to at least a first virtual place, and to convey

the event indications to a client for the information of a user of the client who is not visiting the first virtual place.

**This Page is Inserted by IFW Indexing and Scanning  
Operations and is not part of the Official Record**

**BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ BLACK BORDERS
- ☐ IMAGE CUT OFF AT TOP, BOTTOM OR SIDES
- ☐ FADED TEXT OR DRAWING
- ☐ BLURRED OR ILLEGIBLE TEXT OR DRAWING
- ☐ SKEWED/SLANTED IMAGES
- ☐ COLOR OR BLACK AND WHITE PHOTOGRAPHS
- ☐ GRAY SCALE DOCUMENTS
- ☐ LINES OR MARKS ON ORIGINAL DOCUMENT
- ☐ REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY
- ☐ OTHER: \_\_\_\_\_

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.**